

Fig. 1

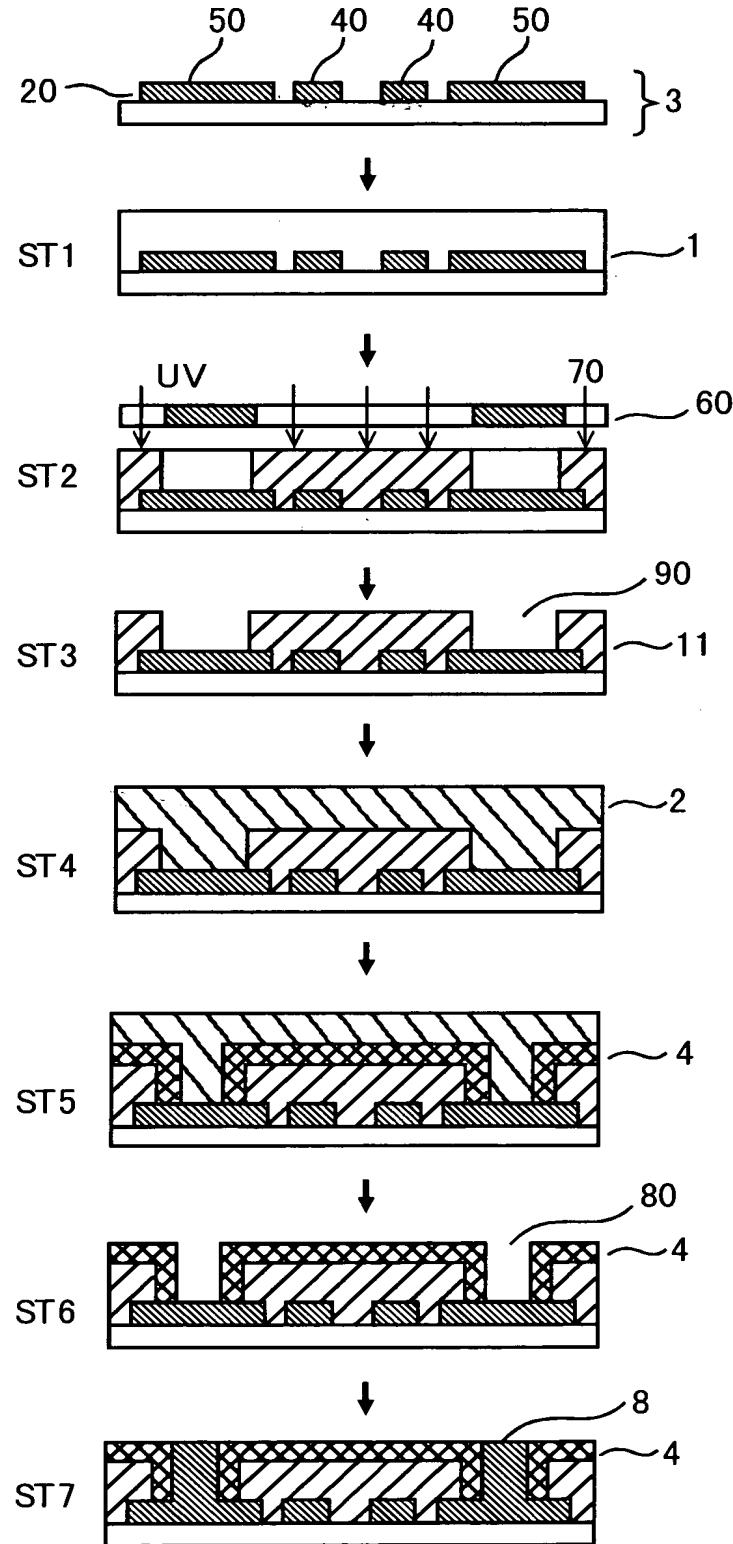
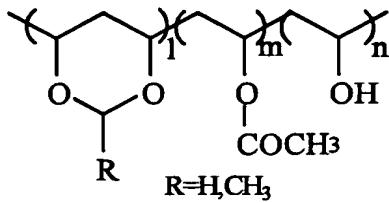


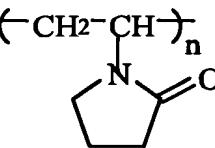
Fig.2



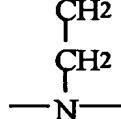
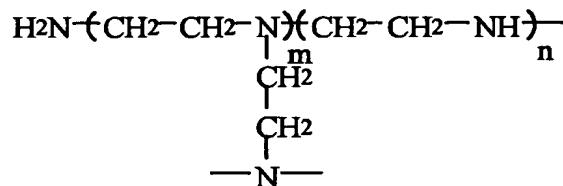
polyacrylic acid



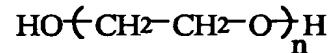
polyvinyl acetal



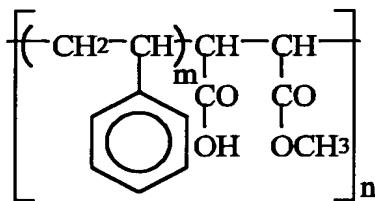
polyvinyl pyrrolidone



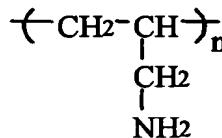
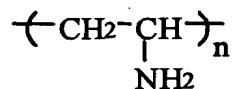
polyethyleneimine



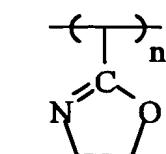
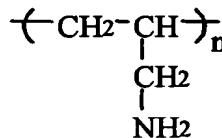
polyethylene oxide



styrene-maleic acid copolymer

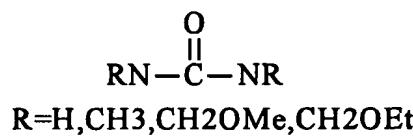


polyvinylamine resin

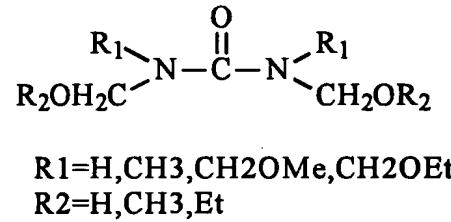
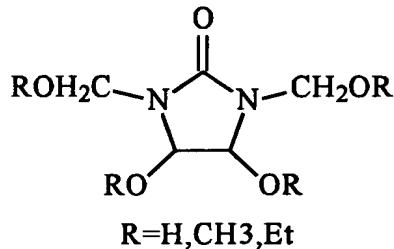


oxazoline group-containing
 water-soluble resin

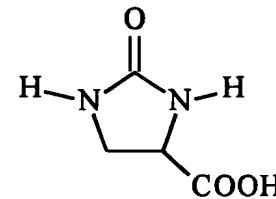
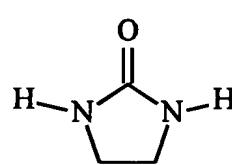
Fig.3



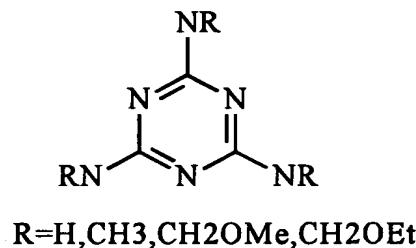
ureaderivatives



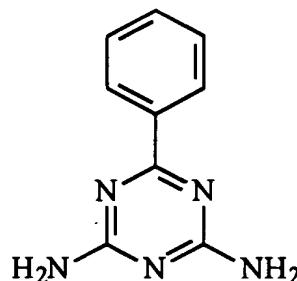
alkoxymethylurea



N-alkoxyethyleneurea

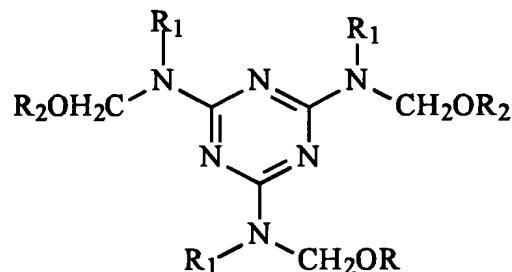


melamine derivatives

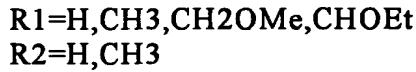


benzoguanamine

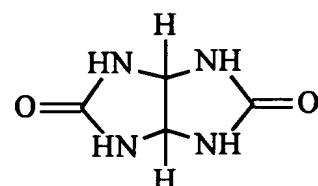
ethyleneurea



ethyleneureacarboxylic acid



alkoxymethylmelamine derivatives



glycoluril

Fig.4

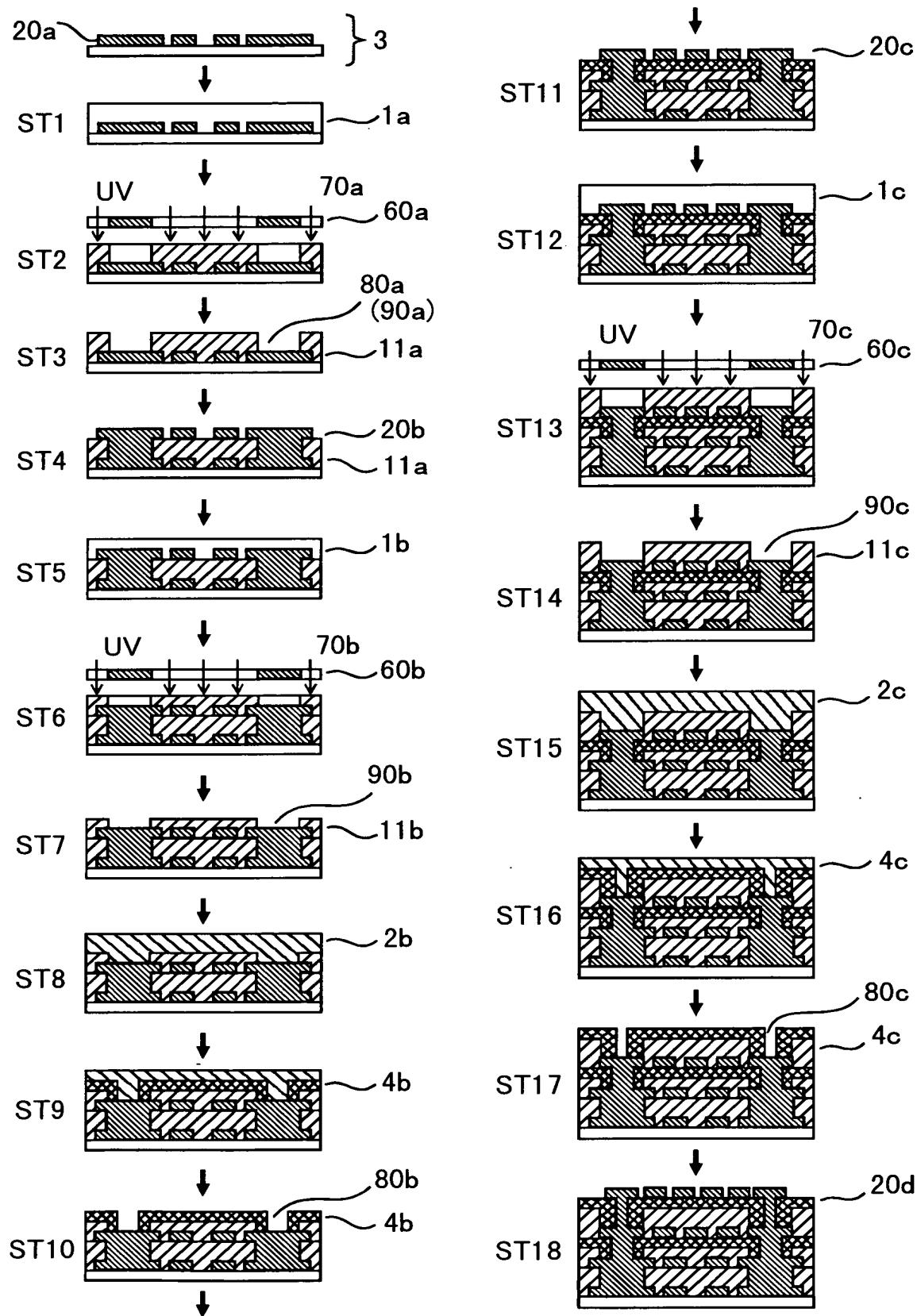


Fig.5

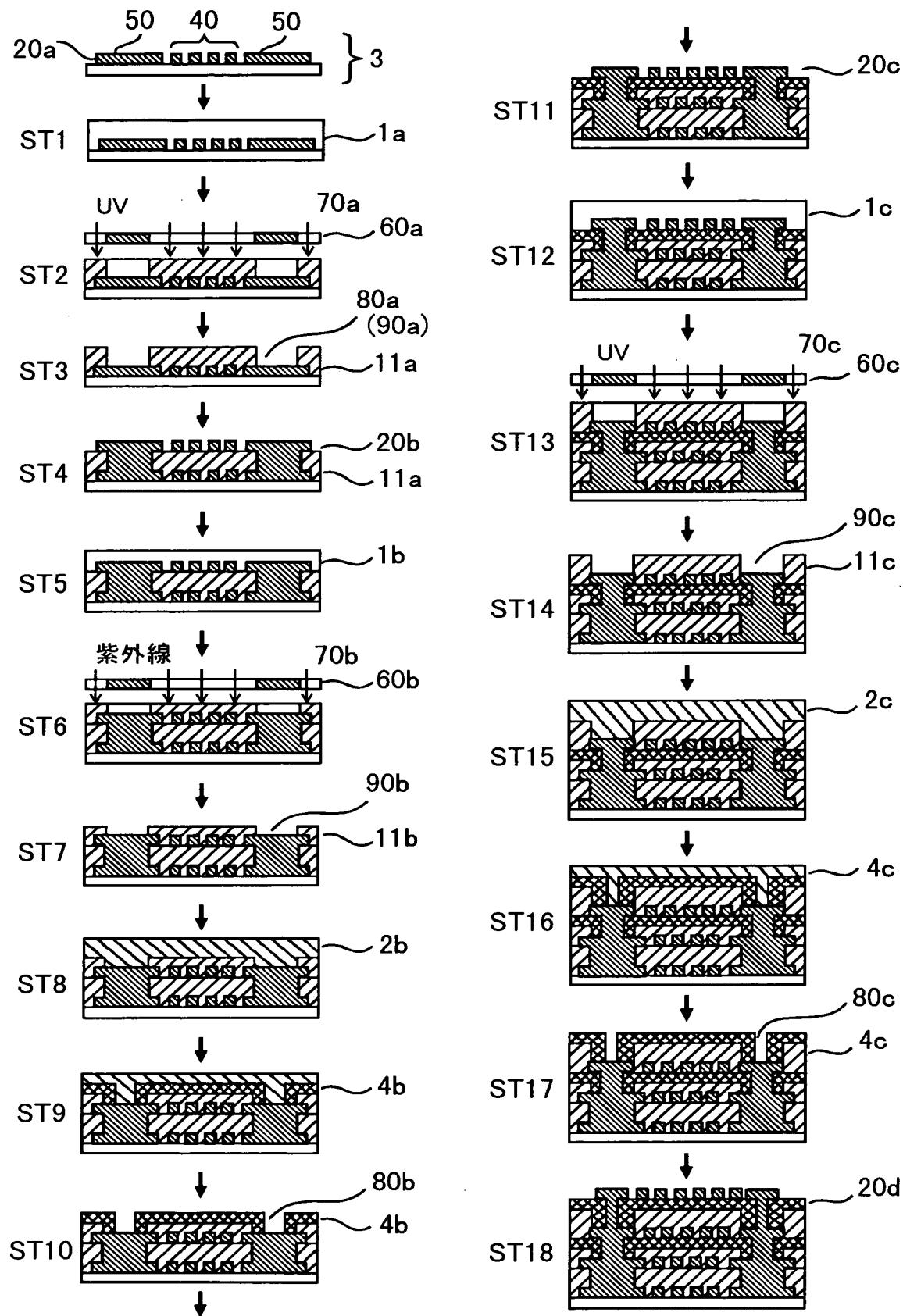


Fig.6

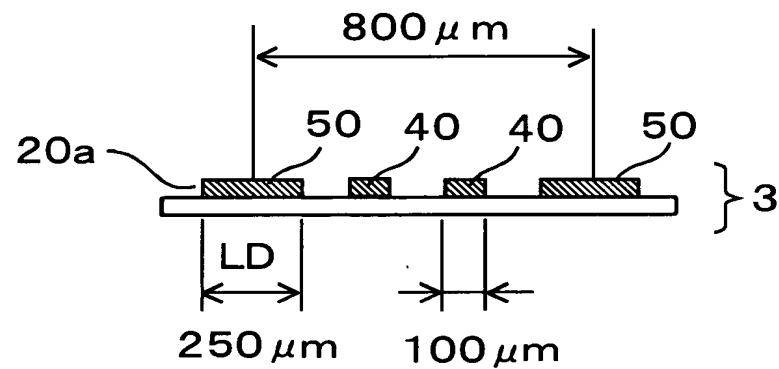


Fig.7

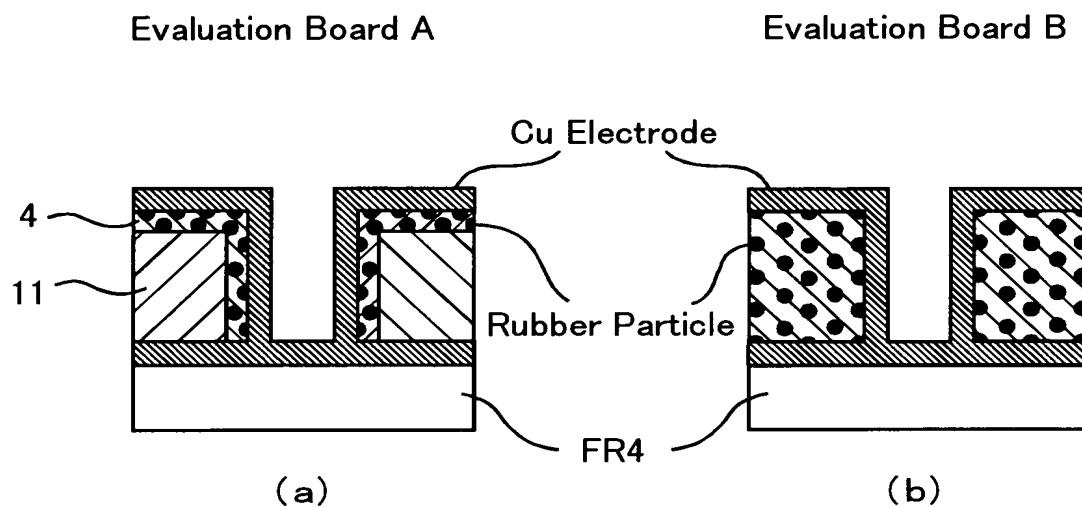


Fig.8
PRIOR ART

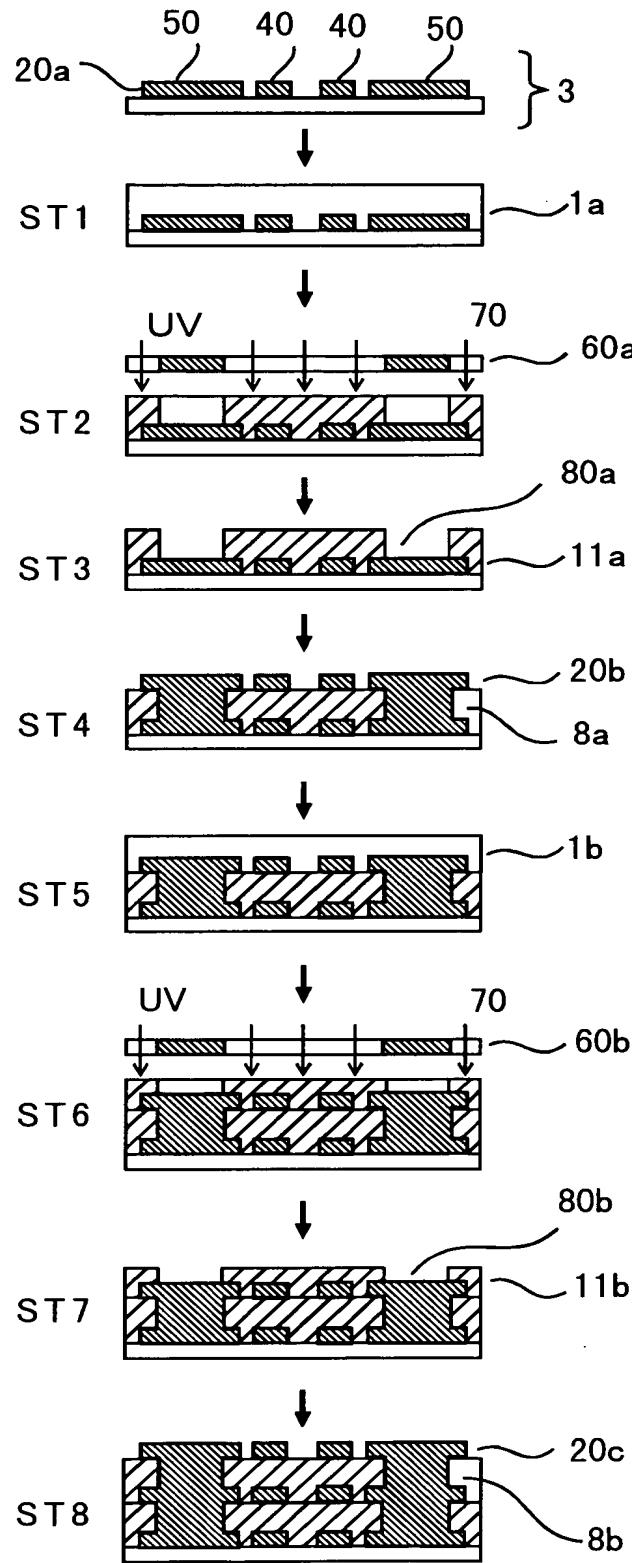


Table 1

Condition	Diameter of Via-Hole
Non Heat Treatment	150 μ m
120°C/60min	130 μ m
130°C/30min	100 μ m
140°C/30min	70 μ m

Table 2

Condition	Diameter of Via-Hole
Non Heat Treatment	150 μ m
110°C/10min	120 μ m
110°C/20min	100 μ m
110°C/30min	80 μ m
135°C/40min	40 μ m

Table 3

Condition	Diameter of Via-Hole
Non Heat Treatment	150 μ m
110°C/15min	120 μ m
120°C/15min	100 μ m
130°C/15min	80 μ m
135°C/20min	45 μ m

Table 4

Condition	Diameter of Via-Hole
Non Heat Treatment	100 μ m
120°C/30min	96 μ m
130°C/30min	90 μ m
140°C/30min	83 μ m

Table 5

Sample	Dielectric Constant [1kHz 25°C]	Thermal Expansion [Vertical 80~120°C]	Peel Strength [90° Peel 25°C]
Evaluation Board A	4.5	40ppm	980kg/cm
Evaluation Board B	4.8	55ppm	970kg/cm